



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,145	12/28/2001	Grant Wunsch	TI-33053	1630

23494 7590 05/05/2005

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

CHUNG, JI YONG DAVID

ART UNIT	PAPER NUMBER
----------	--------------

2143

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/034,145	Applicant(s) WUNSCH, GRANT	
	Examiner Ji-Yong D. Chung	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/26/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/28/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoo et al (Hoo hereinafter) in view of “G.voice, G.dmt.bis, G.lite.bis: Proposal for Seamless Dynamic Rate Repartition for CVoDSL” (DRR_REF hereinafter).

With reference to **claim 1**, Hoo shows a method comprising:

determining reconfiguration transceive parameters for indicating a reconfiguration of a data communication channel [lines 51-57, column 5];

transmitting the reconfiguration transceive parameters and the ack/comply timing information [lines 63-65, column 5 (ack/comp information is not shown)]; and

Hoo does not show, but DRR_REF shows the timing information related components of the limitation:

determining ack/comply timing information indicating a time at which an ack/comply is expected [the feature is inherent in DRR_REF. DRR_SFN in DRR_REF (See page 7) is the ack/comply timing information. For the DRR_SFN to be sent, it must be “determined” first];

Art Unit: 2143

receiving a physical media dependent ack/comply signal indicating whether reconfiguration transceive parameters are to be implemented, the ack/comply signal being received at a time determined by the ack/comply timing information. [See page 7, 4th paragraph, which speaks of ATU-C. ATU_C is to receive a DRR_ACK signal from at the specific superframe count equal to DRR_SFN].

It would have been obvious to one of ordinary skill in the art at the time of the invention to configure and transmit timing information with the request.

The timing information affords better synchronization.

The suggestion related to the superframe number is given in lines 23-43, column 6, where Hoo speaks of super frame number.

With regard to **claim 2**, DRR_REF shows *that a physical media dependent ack/comply signal comprises receiving an ack/comply signal that is encoded within a synch symbol. See page 7, Section 3.3.2 DRR_Ack. The signal is PMD sync symbol.*

With regard to **claim 3**, DRR_REF shows *that the acknowledgment timing information comprises an indication of a specific synch symbol. See page 7, Section 3.3.2 DRR_Ack. The symbol is something that is specifically dedicated for the synchronization.*

With regard to **claim 4**, DRR_REF shows *implementing the reconfiguration transceive parameters in response to the ack/comply signal. See 3.3.2 DRR_Ack. The third paragraph in*

Art Unit: 2143

the section mentions that DRR_Ack signal is the synchronization flag after which the reconfiguration is implemented.

With regard to **claim 5**, DRR_REF shows *information indicating a time in which the reconfiguration transceive parameters should be implemented*. On page 7, the second paragraph indicates that DRR_SFN shows when to effect the changes negotiated by DRR.

With regard to **claim 6**, DRR_REF *further shows implementing the reconfiguration transceive parameters in response to the ack/comply signal, the reconfiguration transceive parameters being implemented at a time in accordance with the implementation timing information*. On page 7, see the second paragraph that explains DRR_SFN indicates when DRR_Ack must arrive from the ATU-R to be valid.

With regard to **claim 7**, DRR_REF *shows the reconfiguration transceive parameters and the ack/comply timing information are transmitted over an OAM channel*. See the second paragraph, on page 7. It explains that the DRR_Request is sent over a framing overhead channel.

With regard to **claim 8**, Hoo shows *the reconfiguration transceive parameters include information to implement a bit swap*. See lines lines 48-65, column 5.

With regard to **claims 9-43**, they speak of lower OAM channel. Hoo mentions auxiliary overhead channel. See lines 44-56, column 6 and ADSL overhead channel. See lines 6-28, column 11. Any of these channels, one of which maybe termed "lower" OAM channel, are available, and therefore it would be obvious to use them for signaling and acknowledgment/comply.

Claims 9-29 substantively incorporate new limitations that describe what a transmitter does in response to receiver that initiates the reconfiguration. They mirror the limitations that are directed to the receiver. Therefore, the same reasons for the rejections of claims 1-8 apply to claims 9-29.

Claims 30-41 and 43 substantively incorporate a number of limitations of claims 1-29, but in apparatus form rather than in method form. The reasons for the rejection of claims 1-29 apply to claims 30-41 and 43. Therefore, claims 30-41 and 43 are rejected for the same reasons.

Claim 42 refers to ADSL, but nonetheless substantively incorporate a number of the limitations of claims 1-29. As per limitation directed to ADSL, Hoo meets the limitation (lines 24-34, column 5).

Allowable Subject Matter

3. **Claims 42 and 43** would be allowable over the prior art of record, if the claims were amended to include the limitations on delay parameter, *in language that functionally distinguishes delay parameter from super frame number.*

The technology in the specification seems to be related partly to ADSL standard proposal, described in “G.voice, G.dmt.bis, G.lite.bis: Proposal for Seamless Dynamic Rate Repartition for CVoDSL.” Specifically, the specification focuses on synchronization issues related to super frame number and delay parameter.

However, based on prior art search, that designation of super frame number over the OAM channel has been known prior to the effective date of the application.

What prior art search does not show involve other timing parameters, such as delay.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji-Yong D. Chung whose telephone number is (571) 272-7988. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2143

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ji-Yong D. Chung
Patent Examiner
Art Unit: 2143



DAVID WILEY
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2100